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AMENDMENTS TO THE CLAIMS

1. (*withdrawn*) A shaped charge for forming a perforation in a subterranean formation, comprising:

a charge case;

an explosive charge;

a liner for retaining the explosive charge within the case, the liner comprising:

a cap member forming a leading portion of a jet; and

an unconsolidated particulated filler material

forming a particulated portion of the jet.

2. (*withdrawn*) The shaped charge of claim 1 further comprising:

a first liner membrane;

a second liner membrane;

wherein the cap member is disposed upon the first liner membrane and the filler material is disposed between the first and second liner membranes.

3. (*withdrawn*) The shaped charge of claim 1 wherein the filler comprises powdered metal.

4. (*withdrawn*) The shaped charge of claim 1 wherein the filler material is a blend of coarse and fine particles.

5. (*withdrawn*) The shaped charge of claim 1 wherein the first and second liner membranes are comprised of plastic.

6. (*withdrawn*) The shaped charge of claim 1 wherein the first and second liner membranes are comprised of polyester.

7. (*withdrawn*) The shaped charge of claim 1 wherein the first and second liner membranes are comprised of fiberglass.

8. (*withdrawn*) The shaped charge of claim 1 wherein the first and second liner membranes are comprised of glass.

9. (*withdrawn*) The shaped charge of claim 3 wherein particles of the powdered metal have a polymer coating.

10. (*withdrawn*) The shaped charge of claim 9 wherein the powdered metal comprises aluminum and the polymer comprises TEFLON®.

11. (*withdrawn*) The shaped charge of claim 10 wherein the aluminum is passivated by a polymer coating.

12. (*withdrawn*) The shaped charge of claim 1 wherein the filler material comprises hollow metal pellets.

13. (*withdrawn*) The shaped charge of claim 1 wherein the filler material comprises glass balloons.

14. (*withdrawn*) The shaped charge of claim 1 wherein the filler material comprises nano

particles of material from the group consisting essentially of aluminum, copper, tungsten, copper-coated tungsten, and TEFLON®-coated aluminum.

15. (*original*) The shaped charge of claim 1 wherein the first and second membranes are contiguously affixed to one another to completely enclose the filler material.

16. (*original*) The shaped charge of claim 1 wherein the filler material has a density that is below formation density.

17. (*original*) The shaped charge of claim 1 wherein the filler material has a density that is below 2.7 g/cc.

18. (*withdrawn*) The shaped charge of claim 3 wherein the powdered metal comprises tungsten.

19. (*withdrawn*) The shaped charge of claim 18 wherein the powdered tungsten is coated with copper.

20. (*previously amended*) A shaped charge for forming a perforation in a subterranean formation, comprising:

a charge case adapted to be positioned in a perforating gun;

an explosive charge formed at least partially of an explosive material;

a liner for retaining the explosive charge within the case, the liner upon detonation of the explosive charge forming a jet having a forward portion and a substantially particulated portion, the particulated portion having a lower density than the forward

portion.

21. (*previously amended*) The shaped charge of claim 20 wherein the particulated portion is formed of a filler material having a density of less than 2.7 g/cc.

22. (*previously amended*) The shaped charge of claim 21 wherein the filler material is particulated.

23. (*previously amended*) The shaped charge of claim 21 wherein the filler material comprises powdered aluminum.

24. (*withdrawn*) The shaped charge of claim 23 wherein the filler material further comprises TEFLON®.

25. (*original*) The shaped charge of claim 20 wherein the liner has a shape from the group consisting essentially of conical, cylindrical, trumpet, tulip, ball, and hemispherical.

26. (*withdrawn*) A method of perforating a formation comprising:
generating a perforating jet having a metal precursor portion followed by a substantially particulated portion;
penetrating a wellbore casing with said metal precursor portion;
kissing the formation with said precursor portion; and
penetrating said formation with said particulated jet to form a perforation.

27. (*withdrawn*) The method of claim 26 further comprising the step of initiating a secondary detonation reaction within the formation to open pores within the formation surrounding the perforation.

28. (*withdrawn*) The method of claim 27 wherein the step of initiating a secondary detonation reaction comprises heating air-filled pores in unconsolidated aluminum and rapidly oxidizing unconsolidated aluminum via proximity of fluorine atoms in a TEFLON® coating.

29. (*withdrawn*) The method of claim 26 wherein the secondary burning reaction further comprises oxidizing aluminum through a TEFLON® coating.

30. (*withdrawn*) The method of claim 26 further comprising the step of disposing unreacted polymer within the formation to reduce fluid viscosity.

31. (*withdrawn*) The method of claim 26 further comprising the step of disposing unreacted TEFLON® within the formation to reduce fluid viscosity.

32. (*cancelled*) An explosively formed penetrator comprising:

a charge case;

an explosive charge within said charge case;

a liner for retaining the explosive charge within the case, the liner comprising:

a substantially contiguous first liner membrane;

a substantially contiguous second liner membrane; and

a particulated filler material disposed between the first and second liner

membranes, the filler material being substantially unconsolidated.

33. (*currently amended*) The shaped charge of claim 20 wherein the explosively formed penetrator further comprises a metal cap disposed upon the liner.

34. (*previously presented*) The shaped charge of claim 20 wherein the liner forming a precursor jet is conformal to the charge case.

35. (*new*) The shaped charge of claim 21 wherein the filler material has a density that approximates the density of an oil bearing formation.

36. (*new*) The shaped charge of claim 20 wherein the forward portion of the jet penetrates one of (i) a perforating gun scallop, (ii) a perforating gun cover, (iii) a wellbore casing, and (iv) cement sheath.

37. (*new*) the shaped charge of claim 20 wherein the particulated portion of the jet perforates the subterranean formation.

38. (*new*) the shaped charge of claim 20 wherein the particulated portion of the jet increases in temperature and reduces interstitial fluid viscosity upon penetration into the subterranean formation.

39. (*new*) The shaped charge of claim 1 wherein the filler material has a density that approximates the density of an oil bearing formation.

40. (*new*) The shaped charge of claim 1 wherein the forward portion of the jet penetrates

one of (i) a perforating gun scallop, (ii) a perforating gun cover, (iii) a wellbore casing, and (iv) cement sheath.

41. (*new*) the shaped charge of claim 1 wherein the particulated portion of the jet perforates the subterranean formation.

42. (*new*) the shaped charge of claim 1 wherein the particulated portion of the jet increases in temperature and reduces interstitial fluid viscosity upon penetration into the subterranean formation.